

## THE MANUFACTURE OF SPINIFEX GUM BY DESERT ABORIGINES

By MARK DE GRAAF

During the years 1962-1963 the writer was stationed at the Warburton Ranges Mission as Headmaster of the Government School. During this time the manufacture and usage of spinifex gum was observed and recorded on several occasions. The following is an account of how the gum is extracted. My informants were Ngada-dara or Manjindi-dara-speaking natives.

On one occasion the extraction of gum (kiddi) was observed near Gabi Biyul (Lilian Soak) at the foot of the Townsend Range (Yabu Biyul). The owner of this horde country, Harry Sims, accompanied me, while Stanley West, also a Ngada-dara man, was third in the party.

A large stone, about three feet in diameter and rising two feet above the ground, was said to have been the traditional gum manufacturing site of Harry Sims's family. The top of this stone was smooth and showed signs of having been utilised often. Many smaller stones, all with one flat side and apparently of the same composition as the big stone, were lying nearby. The stones appeared to be of the same structure as the nearby Townsend Range, the colour being a pinkish brown (probably a sandstone). The range is part of the Nullagine Series.

The informants explained that the spinifex growing nearby was larger than "elsewhere" (presumably because of the more favourable growing conditions, such as additional watershed) and was particularly suited for the making of gum. Although this site is about 20 miles in a straight distance east of the mission, both men claimed to go here, in preference to other places, to make their gum.



Beating the spinifex stalks to dislodge the particles of resin.

—Photo Mark de Graaf.

It was noted that many of the spinifex clumps were old. Instead of the familiar dome shape, part of the clump had disappeared, so that only a ring of stalks remained. These were quite large and at the base of most of them small globules of gum could be seen. The largest globules measured  $1/32$  in. in diameter.

While one of the men obtained some dry bark (likara) from nearby mulga trees (*Acacia aneura*) (wanari), the other uprooted some of the spinifex by pushing it sideways with his foot from underneath, thus avoiding the needle-like ends of the stalks, and then pulling the stalks out by grabbing them at the base close to the ground. A big bundle was soon collected on top of the flat stone. (If no stone is available a "mat" of emu-feathers is sometimes used.)

A big piece of mulga wood, measuring about  $1\frac{1}{2}$  in. in diameter and about 2 feet long, was now used to beat the spinifex, thus breaking the stalks and dislodging the particles of resin. Every now and then the men would stop and remove the stalks by using their fingers like a sieve. They explained that this could also be done by filtering the spinifex through twigs of the mulga (parka).

When most pieces of stalk had been removed, the bark was lit and the flame passed to and fro over the remaining particles at a distance of about  $1-1\frac{1}{2}$  in. When the spinifex caught fire this was quickly put out or the burning part removed with a stick.

Some of the smaller stones lying nearby and mentioned above, were now used to beat the mass of globules. These stones are somewhat bigger than a man's fist and quite heavy. After some beating heat was again applied, followed again by beating. During this process the light yellow colour of the spinifex gradually changed to an almost black-brown, with a few yellow specks caused by the remaining stalk-particles.

When all the globules had fused into a thick, dark mass, the bark was put aside and the gum bashed to make a flat cake  $10 \times 3\frac{1}{2}$  in. and  $\frac{1}{2}$  in. thick. The gum soon hardened when no more heat was applied. Although the gum is reasonably hard when cold, during hot weather it becomes slightly pliable. A string wound around a piece of the gum will leave a mark for instance. Fingermarks are preserved well on the surface of the gum objects. Gum objects no longer usable can be melted down at any time.

Usually the gum is carried either as a ball about the size of a tennis ball or on the end of the spearthrower (miru) where it serves as a counterweight as well as holding the adze (kandi or djimari) in place.

On this occasion however the men were going to make a sacred board by incising the flat gum cake with totemic designs relating to the legend of the Bandicoot Man (Wati Bira or Mu:nba). It was claimed that sometimes such gum boards measured three feet or more. Every man taking part in the relevant ceremonies would contribute some gum. As the whole process had taken an hour, it can well be realised how long it would take to make a three-foot board in this way.

An interesting substitute for spinifex gum was given as gurun-gantiri. This substance is found in the shallow caves in the sides of the sandstone breakaways, which are common in the Great Victoria Desert and lower Gibson Desert. The substance is black and has the appearance of tar. It is usually mixed with small stones and twigs. Lumps of up to 18 in. in length by a width of 8 in. have been recorded. The informants claim that this substance can be made pliable after heating it under hot ashes, after which it is applied like spinifex gum.



The deposits of this substance were attributed by the informants to a species of bandicoot (ninu). This would point at a link between the bandicoot's excreta and the manufacturing of spinifex gum as first performed by the Bandicoot Man.

At an increase site for the Bandicoot in the Great Victoria Desert (here too the Ancestral Hero was named Wati Bira or Wati Mu:mba), a few hundred miles south of Warburton, a row of stone cairns led to a small cave in which deposits of gurun gantiri were found. Gurun gantiri has been collected at many locations, one of the more accessible being Gabi Windalda (Winduldar Rockhole) on the main road from Warburton to Laverton, about 50 miles south-west of the Mission.

The above notes on the extraction of gum differ from the account given by A. G. Mathews (*W. Aust. Nat.*, 9, 1964: 96) Professor J. B. Cleland's footnote to Mathews' article appears to be more in line with the method of extraction observed by me. The discrepancy between my account and that of Mathews may be explained by the fact that traditional life is now fast disappearing, while Mathews was in a position to observe the Ngada-dara in their nomadic state. Furthermore, there is probably a difference between the methods employed by mixed parties utilising any spinifex, as observed by Mathews and the one I recorded, of a male party going to a favourite totemic site.

## NOTES ON BREEDING THE RED-WINGED WREN (*MALURUS ELEGANS*) IN CAPTIVITY

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On June 4, 1962 a male Red-winged Wren in eclipse plumage was placed in a small planted aviary containing two White-breasted Robins and pair of Scarlet-chested Parrots. The bird appeared a little 'fluffy' the first day but was observed eating. Appearance improved after a few days but he scratched himself quite a lot particularly about the eyes. On June 10 he was caught and placed in a small cage and treated with penicillin eye ointment and terramycin was placed in the drinking water. These measures were purely precautionary. After one week of this treatment he improved and was liberated in a large heavily planted aviary 36 x 30 x 10 ft. Two immature Splendid Wren (*M. splendens*) males attacked the Red-winged Wren so the Splendids were removed to another aviary.

June 26: A female Splendid Wren was heard emitting a buzzing call "Z-z-z Z-z-z- Z-z-z." She then flew to the perch occupied by the Red-winged Wren male (hereafter called Male A) and snuggled up close to him.

June 28: Another male Red-winged Wren (Male B) plus a female of the same species were obtained and placed in the small aviary with the White-breasted Robins and Scarlet-chested Parrots. The wrens sang immediately and appeared indignant at the robins.

July 22: A dark spot appeared on the breast of male A as he commenced his moult into nuptial plumage. He was transferred to another aviary in order to separate him from the Splendid female.

August 3: Male B commenced to moult with a dark feather appearing on the breast. This bird, together with his female companion, were transferred to the large aviary and by September 20 had attained full nuptial plumage.

October 14: Male A was examined and photographed. He had definitely ceased moulting but was only partially coloured up.